REMARKS

Claims 1, 5, 6 and 8-11 are pending. Claims 1 and 10 are the only independent claims.

Claims 1, 5, 6 and 10 were rejected under 35 U.S.C. § 103 over U.S. Patent U.S. Patent 5,726,786 (Heflinger) in view of U.S. Patent 6,330,093 (Eller et al.). Claims 8, 9 and 11 were rejected under 35 U.S.C. § 103 over Heflinger in view of Eller et al. and further in view of U.S. Patent 6,304,357 (Ohhata et al.). Applicant submits that independent claims 1 and 10 are patentable for at least the following reasons.

Claim 1 is directed to an optical data bus communication system of an artificial satellite. The system comprises: a plurality of first devices, each of which is equipped with an optical transmitter each transmitter transmitting signals of a differing wavelength; a reflection means that is provided on the entire inner surface of, or at prescribed locations inside, the case of the artificial satellite; and a plurality of second devices, each of which is equipped with an optical receiver that receives optical signals that are transmitted from the optical transmitters both directly and after reflection and diffusing by the reflection means, each receiver receiving optical signals of a different wavelength and reproducing the optical signals from these received signals.

It was conceded in the Office Action that Heflinger does not teach the feature of claim 1 by which each transmitter transmits signals of a different wavelength, and each receiver receives optical signals of a different wavelength. In the Office Action, the position was taken that it would have been obvious to modify Heflinger based on certain teachings in Eller et al. so as to meet this limitation. Applicants disagree.

Heflinger is directed to a free-space passively star-coupled data bus in which each of plural transceivers simultaneously communicates data to the remaining transceivers using

uniform distributed light which is preferably collimated. Only one of the transmitters operates to transmit at any one time. More than one receiver simultaneously receives transmitted data. Col. 8, lines 46 through col. 9, line 24. Addressing is done based upon a protocol, the use of this protocol permits the appropriate receiver to receive the data intended for that receiver.

An important feature of Heflinger is the use of an eye-safe wavelength for all transmissions. This advantageously allows the system to be used in environments in which humans are present. It is clear from the above that Heflinger uses a particular wavelength, chosen with safety in mind, for *all* such broadcast communication and relies upon a protocol for addressing.

Eller relates to a backbone interface for use in a modular spacecraft. The backbone includes an optical data bus extending along the spacecraft core structure for carrying data signals in optical form from one module to another in the spacecraft. Each module has an optical interface for converting optical signals received by the module into electrical signals for use within the module. Col. 1, lines 32 through 47.

The optical data bus uses wavelength division multiplexing (WDM) over an optical cable. The optical interface for each module can multiplex signals for transmission onto the optical data bus, and demultiplex signals received. However, there is no teaching in Eller that a particular receiver is attuned to a particular one of the multiplexed frequencies. In fact, the optical interface of every module receives *all frequencies* and relies upon the demultiplexer to separate out the various frequencies.

In fact, while WDM is used in Eller to encode data for transmission over the optical data bus, there is no teaching whatsoever that each receiver receives optical signals of a different wavelength, as claimed. For at least this reason, even if Heflinger and Eller are combined, the combination does not meet all the features of claim 1.

For at least the above reasons, no prima facie case of obviousness has been set forth with regard to claim 1. Claim 10 is a corresponding method claim that recites similar features and is believed patentable for similar reasons.

Moreover, there would have been no motivation to combine WDM techniques applicable to optical data buses of the type taught in Eller to free-space systems such as are taught in Heflinger. In the first place, Heflinger clearly contemplates use of a single frequency, and one that will not injure a person's eyes. Further, the Examiner has not indicated how WDM techniques usable for data transmission over an optical cable, as in Eller, can be applied to free-space data transmission systems, such as Heflinger.

For at least these additional reasons, no prima facie case of obviousness has been set forth.

The other claims in this application are each dependent from one or the other of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments, Applicants respectfully request favorable reconsideration and passage to issuance of the present application.

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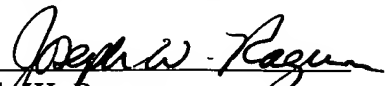
Respectfully submitted,

By 

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